

June 5, 2013

Mr. Murry Wilson, Environmental Resource Specialist
Department of Planning and Building
County of San Luis Obispo
976 Osos Street, Room 300
San Luis Obispo, CA 93408-2040

Subject: Comments on Draft EIR for the Las Pilitas Quarry Conditional Use Permit and Reclamation Plan in San Luis Obispo County

Dear Mr. Wilson:

The following letter contains comments from a peer review of the Transportation and Circulation Section of the *Draft Environmental Impact Report* (DEIR) for the *Las Pilitas Quarry Conditional Use Permit and Reclamation Plan* prepared by URS in March 2013; and, the *Las Pilitas Rock Quarry Traffic Impact Study* (TIS) prepared by TPG in May 2009. It should be noted that the TPG TIS was peer reviewed and updated by Associated Transportation Engineers (ATE) based on additional traffic issues that needed to be addressed per County and Caltrans staff.

Arch Beach Consulting has been retained by Margarita Proud to conduct a peer review of the DEIR and TIS. The peer review focuses on the methodology of the traffic analysis; the reported impacts and mitigation measures of the proposed project; and, the consistency of the traffic analysis findings in relation to other projects that have been recently approved, or are currently going through the entitlement process, in the area along State Route 58 (SR 58).

According to the DEIR, the methodology, including study area, of the traffic analysis for the DEIR was updated from the TIS based on consultation with County and Caltrans staff, and comments received during the Notice of Preparation (NOP) period. The proposed project would generate traffic on Caltrans and San Luis Obispo County roadway facilities. Caltrans has published the *Guide to the Preparation of Traffic Impact Studies* (2002) which provides the study area and analysis requirements for State facilities affected by the proposed project.

The following provides our comments based on our peer review of the DEIR and TIS:

Issue 1 – The traffic impacts disclosed in the DEIR and TIS are understated because a passenger-car equivalency (PCE) factor was not used for project truck trips. With the application of a PCE factor for project trucks, the proposed project generates a similar amount of traffic as the approved Santa Margarita Ranch Agricultural Residential Cluster Subdivision located west of the quarry site along SR 58. The EIR for the Agriculture Residential Cluster Subdivision development found numerous significant impacts and provided mitigation measures.

Per the *Highway Capacity Manual* (HCM), the passenger-car equivalent (PCE) represents the number of passenger cars (basic vehicles) displaced by each truck in the traffic stream under specific conditions of flow. PCEs have been used extensively in HCM analysis methodologies to establish the impact of trucks, buses, and recreational vehicles on traffic flow. Traditionally, PCEs have played an important role in freeway design and operations analysis. Based on review of section 2.3.3 *Trip Generation and Truck Traffic* (page 2-8), section 4.11.6 *Project Impacts and Mitigation Measures* (page 4.11-16), and Table 4.11-8 *Revised Project Trip Generation* (page

4.11-17) of the DEIR; and, the *Project Trip Generation* section (page 6) and *Appendix B Project Trip Generation Calculation* of the TIS, there is no mention of the use of a PCE adjustment for the 273 truck trips generated by the proposed project. Based on the size and length of the aggregate trucks of the proposed project (approximately 65 feet, with double trailers), the appropriate PCE factor would be 3.0, or one truck equivalent to three passenger-cars. It should be noted that the *Topaz Solar Farm DEIR* (Aspen Environmental Group, March 2011) and *Transportation Impact Study* (Wood Rodgers, July 2010) also used a PCE factor of 3.0 for their project-generated bus and truck trips. The PCE-factored trips were used in their traffic analyses.

With the application of a 3.0 PCE to the Las Pilitas Quarry project, the passenger-car equivalence would be 819 daily trips (273 truck trips X 3.0 PCE), 114 a.m. peak hour trips (38 truck trips X 3.0 PCE), and 90 p.m. peak hour trips (30 truck trips X 3.0 PCE). The total project trip generation, in PCE, would be 829 daily trips, 119 a.m. peak hour trips, and 95 p.m. peak hour trips. The DEIR only reported a total trip generation of 283 daily trips, 43 a.m. peak hour trips, and 35 p.m. peak hour trips.

Given the higher trip generation of the proposed project when PCE is factored-in, the originally reported traffic impacts in the DEIR and TIS would be understated. When the proposed project's PCE trip generation is compared to the volume of traffic generated by the nearby *Santa Margarita Ranch Agricultural Residential Cluster Subdivision* project (Agriculture Residential Cluster Subdivision), the proposed project's volumes (in PCE) would be similar to Agriculture Residential Cluster Subdivision's daily and peak hour traffic volumes. Table A provides a comparison of the Las Pilitas Quarry traffic volumes (in PCE) with the Agriculture Residential Cluster Subdivision traffic volumes.

Based on the table, with an "apples-to-apples" comparison of passenger-car trips (i.e., truck trips converted to equivalent passenger-car trips) between the two projects, the Las Pilitas Quarry project would generate 325 less daily trips, 31 more a.m. peak hour trips, and 24 less p.m. peak hour trips than the approved 112 single-family home subdivision.

The addition of truck traffic from the proposed Las Pilitas Quarry will contribute traffic to locations with existing operational issues and to locations that do not meet current Caltrans or County design standards. Table B presents the impacts and mitigation measures for the Agriculture Residential Cluster Subdivision project that would be pertinent to the Las Pilitas Quarry project as both projects would contribute similar amounts of daily and peak hour traffic to existing transportation facilities with existing known hazards and deficiencies.

Based on the mitigation measures in the Agriculture Residential Cluster Subdivision EIR, it appears that the Project Applicant (of the Agriculture Residential Cluster Subdivision project) was required to improve the existing substandard and hazardous facilities along SR 58, rather than just pay the fair-share towards the improvements. We agree that this standard should be applied to any project that would be "first in line" for construction and occupancy, whether it be Agriculture Residential Cluster Subdivision or the Las Pilitas Quarry. No new project, that would contribute a significant amount of traffic to the substandard and hazardous facilities along SR 58, should be granted a Certificate of Occupancy without physically improving the substandard and hazardous facilities.

Per the DEIR, the Las Pilitas Quarry was only found to make fair-share payments to the improvements of El Camino Real/Estrada Avenue (MM TRAFFIC-1a, page 4.11-19; and MM TRAFFIC-4, page 4.11-29); and, El Camino Real/H Street (MM TRAFFIC-4, page 4.11-29). The only physical improvement required of the proposed project was at El Camino Real/Encina Avenue which was to construct a pedestrian refuge or related pedestrian safety improvement.

Table A – Project Trip Generation Comparison

Land Use			Size	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
LAS PILITAS QUARRY ¹										
Employees			495,000 TPY	10	5	0	5	0	5	5
Trucks				273	19	19	38	15	15	30
• PCE adjustment for trucks (3.0)				819	57	57	114	45	45	90
Total w/ PCE				829	62	57	119	45	50	95
AGRICULTURE RESIDENTIAL CLUSTER SUBDIVISION ²										
Single-Family Residential			112 DUs	1,154	22	66	88	75	44	119
COMPARISON (LAS PILITAS QUARRY – AGRICULTURE RESIDENTIAL CLUSTER SUBDIVISION										
Trip Generation				-325	+40	-9	+31	-30	+6	-24

Notes: ¹ Employee and (non PCE) truck trips are from Table 4.11-8 Revised Project Trip Generation, Draft EIR Oster/Las Pilitas Quarry, URS 2013.

² Single-family residential trips are from Table 4.12-9 Agricultural Residential Cluster Subdivision Trip Generation, Santa Margarita Ranch Agricultural Residential Cluster Subdivision DEIR, Rincon Consultants, Inc., June 2008.

Table B – Applicable Impacts and Mitigation Measures to Las Pilitas Quarry from Agriculture Residential Cluster Subdivision DEIR

Agricultural Residential Cluster Subdivision Impact T-1	Development of the Agricultural Residential Cluster Subdivision would result in the addition of 1,154 average daily trips (88 AM peak hour and 119 PM peak hour trips) to study area roadways and intersections. Although this would not result in exceedances of roadway or intersection LOS standards, with the exception of the US 101/SR 58 interchange northbound off-ramp, the Agricultural Residential Cluster Subdivision will add traffic to locations with existing hazards and deficiencies. Implementation of proposed mitigation measures would improve hazards and deficiencies. However, due to uncertainty regarding Caltrans approval of facilities within State jurisdiction, Class I, significant and unavoidable, impacts would result.
Agricultural Residential Cluster Subdivision Mitigation Measure T-1(a)	<p>SR 58 South of J Street: To mitigate the project's impacts to the two 90-degree curves on SR 58 near J Street, the following improvements are required:</p> <ol style="list-style-type: none"> 1. Widen both sides of SR 58 (from El Camino Real to the Agricultural Residential Cluster Subdivision eastern site access) to provide four foot shoulders and/or bike lanes in accordance with County standards. 2. Install radar feedback signs and advisory speeds on each approach to the 90-degree on SR 58 near J Street. <p>As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and associated approval from Caltrans would be required if</p>

	<p>the cost of the improvements exceeds three million dollars.</p> <p>Plan Requirements and Timing: Improvements shall be installed prior to occupancy clearance. The applicant shall construct and implement the alternate improvements under a Caltrans encroachment permit or Project Study Report.</p> <p>Monitoring: Caltrans and the County of San Luis Obispo Public Works shall site inspect to ensure installation of improvements prior to occupancy clearance.</p>
<p>Agricultural Residential Cluster Subdivision</p> <p>Mitigation Measure T-1(b)</p>	<p>U.S. 101 Northbound Off-Ramp to SR 58: The applicant shall lengthen the deceleration length from 140 feet to 250 feet from the US 101 mainline to the northbound off-ramp to mitigate the Agricultural Residential Cluster Subdivision's impact to the ramp junction.</p> <p>In addition, the applicant shall reconstruct the area where the northbound U.S. 101 off-ramp merges with eastbound SR 58 to provide 400 feet of merging distance to meet Caltrans' current design standards. Since the park-and-ride facility is located adjacent to the northbound off-ramp, reconfiguration of the parking lot and access to a nearby frontage road is required. The applicant shall include designs for the revised park and ride and frontage road access in the permit with Caltrans. A field assessment indicates that the merge area could be lengthened by physically separating the park and ride lot from the roadway, which would improve the existing condition and reduce the impact.</p> <p>As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.</p> <p>Plan Requirements and Timing: Improvements shall be installed prior to occupancy clearance. The applicant shall construct and implement the alternate improvements under a Caltrans encroachment permit or Project Study Report.</p> <p>Monitoring: Caltrans and the County of San Luis Obispo Public Works shall site inspect to ensure installation of improvements prior to occupancy clearance.</p>
<p>Agricultural Residential Cluster Subdivision</p> <p>Mitigation Measure T-1(c)</p>	<p>U.S. 101 Southbound Off-Ramp to SR 58: The project applicant shall extend the deceleration length from 250 to 550 feet for the southbound off-ramp to provide acceptable freeway ramp diverge operations under Cumulative Plus Agricultural Residential Cluster Subdivision conditions.</p> <p>As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.</p> <p>Plan Requirements and Timing: Improvements shall be installed prior</p>

	<p>to occupancy clearance. The applicant shall construct and implement the alternate improvements under a Caltrans encroachment permit or Project Study Report.</p> <p>Monitoring: Caltrans and the County of San Luis Obispo Public Works shall site inspect to ensure installation of improvements prior to occupancy clearance.</p>
<p>Agricultural Residential Cluster Subdivision</p> <p>Mitigation Measure T-1(d)</p>	<p>El Camino Real/Estrada Avenue Redesign: With the addition of Agricultural Residential Cluster Subdivision traffic, the project applicant shall construct the following improvements:</p> <ol style="list-style-type: none"> 1. Widen Estrada Avenue, between El Camino Real and the railroad tracks, to provide a dedicated northbound right-turn lane. 2. Widen El Camino Real to provide a separate left-turn lane for westbound El Camino Real traffic to turn onto southbound Estrada Avenue. 3. Reduce the superelevation of the El Camino Real curve at Estrada Avenue. 4. Prior to implementation of Future Development Program measure T-1(d), traffic signal installation and rail preemption, advance limit lines for northbound Estrada traffic shall be provided immediately south of the rail tracks, and a Manual on Uniform Traffic Control Devices (2003 Edition) R8-10 sign which states "Stop Here When Flashing" shall be provided to minimize the potential for vehicles to stop directly on the railroad tracks. <p>According to San Luis Obispo County Public Works staff, extension of an existing culvert is required as part of this improvement. The applicant shall secure any regulatory permits for the necessary construction of intersection improvements to meet Caltrans standards.</p> <p>As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.</p> <p>Plan Requirements and Timing: Improvement plans for the El Camino Real/Estrada Avenue intersection shall be submitted for review by Planning and Building prior to approval of Land Use Permits. The improvements shall be installed prior to occupancy clearance. The applicant shall implement the improvements under a Caltrans encroachment permit.</p> <p>Monitoring: Caltrans and the County of San Luis Obispo Public Works shall site inspect to ensure installation of improvements prior to occupancy clearance.</p>

<p>Agricultural Residential Cluster Subdivision</p> <p>Mitigation Measure T-1(e)</p> <p><i>It should be noted that warning beacons have already been constructed at Estrada Avenue/H Street</i></p>	<p>Estrada Avenue/H Street Warning Beacon: A pedestrian activated advanced warning beacon shall be installed on the northbound approach to the intersection of Estrada Avenue and H Street, before the crest on Estrada Avenue, to warn drivers of the presence of pedestrians crossing at the intersection. A pedestrian-activated beacon shall also be installed for southbound Estrada Avenue traffic. The precise location for beacon installation shall be determined in consultation with Caltrans under the encroachment permit process, and shall include any required ramps or other Americans with Disabilities Act (ADA) upgrades. The applicant shall fund and install both advanced warning beacons.</p> <p>The <i>Santa Margarita Design Plan</i>, adopted October 9, 2001, recommended the following long-term improvements to Estrada Avenue between H Street and I Street:</p> <ul style="list-style-type: none"> • Improve sight distance by eliminating the hill/crest • Add curbs and textured crossings at Estrada Avenue/H Street • Provide bike lanes on Estrada Avenue <p>These improvements represent alternative mitigation measures for this intersection. However, eliminating the crest would require extensive earthwork and roadbed re-construction. Depending on the final design of the long-term improvements, the flashing beacons could be integrated into the plan.</p> <p>As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.</p> <p>Plan Requirements and Timing: The pedestrian-activated warning beacons shall be installed prior to occupancy clearance. The applicant shall fund and install the required advance warning beacons on Estrada Avenue under a Caltrans encroachment permit prior to occupancy clearance.</p> <p>Monitoring: Caltrans and the County of San Luis Obispo shall site inspect to ensure installation of the pedestrian-activated warning beacons prior to occupancy clearance.</p>
<p>Agricultural Residential Cluster Subdivision</p> <p>Impact T-4</p>	<p>The addition of traffic generated by the Agricultural Residential Cluster Subdivision may result in conflicts with pedestrians and bicyclists, as well as increase demand for transit services. Although impacts on transit services would be less than significant, impacts related to pedestrian movement and bicycle conflicts are Class II, significant but mitigable.</p>
<p>Agricultural Residential Cluster Subdivision</p> <p>Mitigation Measure T-4(a)</p>	<p>El Camino Real/Encina Avenue In-Pavement Flashing Lights: Pedestrian in-pavement flashing lights shall be installed on the eastbound and westbound approaches to the intersection of El Camino Real and Encina Avenue to warn drivers of the presence of pedestrians crossing at the intersection. The precise location for</p>

	<p>beacon installation shall be determined in consultation with Caltrans under the encroachment permit process, and shall include any required ramps or other Americans with Disabilities Act (ADA) upgrades. The applicant shall fund and install the in-pavement flashing lights on El Camino Real.</p> <p>The design of the pedestrian in-pavement flashing lights shall be consistent with the <i>Santa Margarita Design Plan</i>, adopted October 9, 2001, which recommended pedestrian improvements along El Camino Real in downtown Santa Margarita. Because El Camino Real (SR 58) is a state-maintained roadway, this measure would require Caltrans approval and an encroachment permit.</p> <p>Plan Requirements and Timing: The pedestrian in-pavement flashing lights shall be installed prior to occupancy clearance. The applicant shall fund and install the required pedestrian in-pavement flashing lights on El Camino Real under a Caltrans encroachment permit prior to occupancy clearance.</p> <p>Monitoring: Caltrans and County Public Works shall inspect this location to ensure installation of the pedestrian warning beacons prior to occupancy clearance.</p>
	<p>Source: <i>Santa Margarita Ranch Agricultural Residential Cluster Subdivision Project and Future Development Program EIR</i>, Section 4.12 Transportation and Circulation, pages 4.12-16 – 4.12-33. Rincon Consultants, June 2008,</p>

Therefore, we recommend that the Project Applicant revise the traffic analysis to account for PCE for the proposed truck traffic. In addition to the project truck trips adjusted for PCE, the baseline traffic volumes should also be adjusted for PCE for baseline truck traffic. Since the proposed project would generate a similar amount of passenger-car equivalent traffic to segments and intersections along SR 58, and to the US 101/SR 58 interchange as the approved Agriculture Residential Cluster Subdivision project, we recommend that the DEIR be revised to incorporate similar impact and mitigation measure statements. Furthermore, no new project, that would contribute a significant amount of traffic to the substandard and hazardous facilities along SR 58, should be granted a Certificate of Occupancy without physically improving the substandard and hazardous facilities.

Issue 2 – The DEIR and TIS failed to adequately disclose the potential impacts and needed mitigation measures at the at-grade railroad crossing at El Camino Real/Estrada Avenue. The EIR for the Agriculture Residential Cluster Subdivision development found a significant impact and provided a mitigation measure for El Camino Real/Estrada Avenue and the adjacent at-grade railroad crossing.

The DEIR addresses the railroad crossing on Estrada Avenue only as it relates to the vehicular operation of the El Camino Real/Estrada Avenue intersection. Information on the frequency of trains, types of trains (passenger and/or freight), and size of trains/number of cars at the at-grade intersection is not provided, nor is there any analysis of any forecast increase of train usage on this specific rail line. This should be addressed to determine whether there is a future need for railroad crossing grade-separation.

The addition of truck traffic from the proposed Las Pilitas Quarry will contribute traffic to locations with existing operational issues and to locations that do not meet current California Public Utilities Commission (CPUC – railroad crossings/corridors), Caltrans or County design standards. Per the

Agriculture Residential Cluster Subdivision EIR, a review of the northbound (Estrada Avenue) queues indicate that the northbound left-turns are projected to queue back to the railroad tracks during the a.m. peak hour. The DEIR and TIS did not provide a queuing analysis for this intersection to address the potential vehicle queuing on the northbound approach of Estrada Avenue, between El Camino Real and the railroad tracks. Arch Beach Consulting prepared a queuing analysis using the *Synchro 7.0* LOS software which is based on HCM Operations methodologies. The queuing analysis was conducted for the northbound approach at the El Camino Real/Estrada Avenue intersection for the Existing, Existing plus Project, and Existing plus Project with PCE conditions. Table C presents the results of the queuing analysis, and the *Synchro* worksheets are attached to this letter.

Table C – Northbound Approach at El Camino Real/Estrada Avenue Queuing Analysis

Scenario	Available Queue Storage ¹	AM Peak Hour		PM Peak Hour	
		95 th % Queue ²	Impact?	95 th % Queue ²	Impact
Existing	70'	139'	YES	19'	no
Existing + Project	70'	156'	YES	22'	no
Existing + Proj w/ PCE ³	70'	207'	YES	30'	no

Notes: Queuing analysis based on *Synchro 7.0*.

¹ Available storage queue is distance between stop bar and closest railroad track on northbound approach on Estrada Avenue at El Camino Real.

² 95th % Queue is the 95th percentile "design" queue.

³ PCE is passenger-car equivalent. The project truck trips have been converted to equivalent passenger-car trips at 3.0 passenger-cars per truck.

Based on the queuing analysis, there is an existing queuing impact on Estrada Avenue, between El Camino Real and the railroad tracks during the a.m. peak hour. The existing pavement between the stop bar and railroad tracks on Estrada Avenue is approximately 70 feet. The existing queue on the northbound approach in the a.m. peak hour is 139 feet, almost double the length of the existing storage space. With addition of project trips, the 95th percentile queue would be 156 feet and 207 feet, without and with PCE adjustments for project truck traffic. There are no queuing impacts in the p.m. peak hour. Therefore, there would be a significant impact related to the queuing of vehicles on the railroad tracks on Estrada Avenue, south of El Camino Real. This impact was not disclosed in the DEIR and TIS.

At a minimum, in addition to Mitigation Measure T-1(d) above (in Table B), the following improvements should be included to specifically address the at-grade railroad crossing:

- The new traffic signal at El Camino Real/Estrada Avenue shall be interconnected with the existing railroad automatic warning devices. Adding preemption to the new signalized intersection will clear any vehicles queued at the crossing prior to train arrival.
- Install a raised concrete median on both approaches to the railroad crossing per current CPUC standards. This will reduce gate drive-around incidents.
- Extend the existing lane guidance striping on the east approach through the crossing to help delineate the traveled roadway through the crossing. The existing striping ends just east of the railroad crossing.
- Add bicycle lanes through the crossing to match the planned bicycle lane installation on El Camino Real as part of the Salinas River Area Plan and the Santa Margarita Design Plan. The crossing may be currently used by bicyclists traveling to the nearby elementary school. Adding bicycle lanes will aid bicyclists traveling over the railroad crossing.

- Prohibit on-street parking within 100 feet on both sides of the railroad crossing to improve the visibility of warning devices and approaching trains.
- Installation of pedestrian-specific warning devices and channelization and sidewalks.
- Construct turn-out lanes for buses and trucks transporting hazardous materials.

Therefore, we recommend that the Project Applicant revise the traffic analysis to disclose specific impacts related to the at-grade railroad crossing. Since the proposed project would generate a similar amount of passenger-car equivalent traffic through the railroad crossing as the approved Agriculture Residential Cluster Subdivision project, we recommend that the DEIR be revised to incorporate similar impact and mitigation measure statements, and the additional measures listed above. Furthermore, no new project, that would contribute a significant amount of traffic to the substandard and hazardous facilities along SR 58, should be granted a Certificate of Occupancy without physically improving the substandard and hazardous facilities.

Issue 3 – The DEIR and TIS failed to disclose the potential impacts and needed mitigation measures for recreational bicyclists on SR 58, east of Santa Margarita. The EIR for the Agriculture Residential Cluster Subdivision development found a significant impact and provided mitigation measures for SR 58, south of J Street.

Although not designated on the County's Bicycle Master Plan, SR 58, east of Santa Margarita is a popular rural highway for recreational bicyclists. Several bicycle facilities exist in the vicinity of the approved Agricultural Residential Cluster Subdivision site that the truck traffic from the proposed Las Pilitas Quarry would travel. However, bike lanes are not provided on SR 58. Bicyclists are forced to use the narrow shoulders or to ride in the travel lanes. The truck traffic added by the proposed Las Pilitas Quarry will increase potential automobile/truck/bicycle conflicts on SR 58 between downtown Santa Margarita and the project entrance, east of the Salinas River due to the narrow roadway width on West Pozo Road (SR 58). Mitigation was required for the Agricultural Residential Cluster Subdivision project to ensure less than significant impacts. Since the proposed project would generate similar volumes of traffic, in passenger-car equivalents, as the approved Agricultural Residential Cluster Subdivision project, the same impact thresholds and mitigation measures should apply to the Las Pilitas Quarry project. Below is the impact statement regarding automobile-bicycle conflicts on SR 58 from the Agricultural Residential Cluster Subdivision project EIR:

Agricultural Residential Cluster Subdivision Impact T-4	The addition of traffic generated by the Agricultural Residential Cluster Subdivision may result in conflicts with pedestrians and bicyclists, as well as increase demand for transit services. Although impacts on transit services would be less than significant, impacts related to pedestrian movement and bicycle conflicts are Class II, significant but mitigable.
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Implementation of Agricultural Residential Cluster Subdivision mitigation measure T-1(a), which requires widening of West Pozo Road (SR 58) along the Agricultural Residential Cluster Subdivision site's frontage to accommodate County-planned Class II bicycle lanes or shoulders, would reduce potential automobile-bicycle conflict impacts to a less than significant level. This would mitigate the Las Pilitas Quarry truck traffic's potential impact to truck/bicycle conflicts.

<p>Agricultural Residential Cluster Subdivision</p> <p>Mitigation Measure T-1(a)</p>	<p>SR 58 South of J Street: To mitigate the project's impacts to the two 90-degree curves on SR 58 near J Street, the following improvements are required:</p> <ol style="list-style-type: none"> 1. Widen both sides of SR 58 (from El Camino Real to the Agricultural Residential Cluster Subdivision eastern site access) to provide four foot shoulders and/or bike lanes in accordance with County standards. 2. Install radar feedback signs and advisory speeds on each approach to the 90-degree on SR 58 near J Street. <p>As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report and associated approval from Caltrans would be required if the cost of the improvements exceeds three million dollars.</p> <p>Plan Requirements and Timing: Improvements shall be installed prior to occupancy clearance. The applicant shall construct and implement the alternate improvements under a Caltrans encroachment permit or Project Study Report.</p> <p>Monitoring: Caltrans and the County of San Luis Obispo Public Works shall site inspect to ensure installation of improvements prior to occupancy clearance.</p>
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Therefore, we recommend that the Project Applicant revise the traffic analysis to disclose specific impacts related to recreational bicyclists on SR 58. Since the proposed project would generate a similar amount of passenger-car equivalent traffic on SR 58 as the approved Agriculture Residential Cluster Subdivision project, we recommend that the DEIR be revised to incorporate similar impact and mitigation measure statements, and the additional measures listed above. Furthermore, no new project, that would contribute a significant amount of traffic to the substandard and hazardous facilities along SR 58, should be granted a Certificate of Occupancy without physically improving the substandard and hazardous facilities.

Issue 4 – The DEIR and TIS failed to provide any detail on the project's vehicular access on SR 58, and a qualitative access analysis is not provided. While Mitigation Measure TRAFFIC-3a requires a Caltrans Encroachment Permit and incorporation Caltrans conditions, there is no disclosure of the details of the proposed access, nor a discussion of the impacts of project truck traffic entering and existing the site on SR 58.

As stated on page 4.11-23 of the DEIR:

"...Under normal operations, no more than a few trucks are expected at the quarry site at any one time. Intersection analysis indicates that under both existing and future conditions, the proposed driveway access on SR 58 will function adequately without additional highway widening, dedicated turn lanes, or other improvements. The specific design of the driveway intersection with SR 58 is considered adequate, but final design has not yet been approved by Caltrans..."

That statement assumes that no additional improvements are required at the proposed project access on SR 58 under "normal" conditions. The following impact and mitigation measure statements are provided in the DEIR:

Description of Impact	Mitigation Measure	Residual Impact
Oster/Las Pilitas Quarry Impact TRAFFIC-3a: Access. The proposed access drive will require construction within the SR 58 right-of-way causing temporary disruption of highway traffic, and long term adverse effects on traffic using the state highway.	MM TRAFFIC-3a: Access. Prior to the issuance of any construction permit by the County for the project access road, the applicant/quarry operator shall obtain an Encroachment Permit from Caltrans, and shall incorporate any conditions from Caltrans related to traffic controls or construction of the access road into its design.	Less than significant

As discussed in Issue 1, the driveway LOS analysis is likely based on non-PCE adjusted peak hour traffic volumes which understate the impacts of project truck traffic on the delayed movements (eastbound left turn in to site; and, southbound right turn out of site). More important, given the high-speed nature of SR 58, and that it's a two-lane undivided highway with sub-standard shoulders, special design considerations should be given the truck traffic movements that would be occurring at the SR 58 driveway (38 trucks per hour on a normal day, and higher on peak market periods). On average, that would equate to one truck turning into the site; and, one truck turning out of the site, every three minutes (on a normal day) during the a.m. peak hour. And, one truck turning into the site; and, one truck turning out of the site, every four minutes (on a normal day) during the p.m. peak hour. During peak market demand periods, truck movements at the driveway may occur every minute, or less.

There would be more truck movements at the project driveway on SR 58 that would interfere with east- and westbound vehicles traveling on the highway, as well as recreational bicyclists. With project truck traffic stopping on the eastbound travel lane of SR 58 to enter the project site, potential conflicts may occur with other vehicles and bicyclists on SR 58. The consideration of an eastbound left turn storage lane should be considered from an operational and safety standpoint for other eastbound vehicles and bicyclists on SR 58. Also, the consideration of an acceleration lane for westbound trucks exiting the site should be considered. These improvements should be planned and analyzed for a peak production day of the quarry to ensure there would be no vehicular conflicts at the project driveway at SR 58 under any project conditions. In addition, truck turning templates should be applied to the inbound and outbound turn lanes to ensure that trucks do not cross the street centerline while maneuvering in- and out of the project driveway.

Therefore, we recommend that the Project Applicant revise the DEIR and TIS to disclose specific analyses, potential impacts, and required mitigation measures for the design of the project access driveway on SR 58. Furthermore, no new project, that would contribute a significant amount of traffic to the substandard and hazardous facilities along SR 58, should be granted a Certificate of Occupancy without physically improving the substandard and hazardous facilities.

Issue 5 – The DEIR failed to address the higher accident rate (0.99) on the SR 58 transition ramp to US 101 south. The State Average for this facility is 0.35. The DEIR ignores this significant finding and does not address this significant impact.

Table 4.11-6, *US Highway 101/SR 58 Accident Rates*, on page 4.11-9 of the DEIR shows that the actual (calculated) accident rate on the SR 58 southbound on-ramp to US 101 is 0.99. In the same table, the reported state average accident rate is 0.35. The actual accident rate on this facility is almost three times greater than the state average. Yet, on page 4.11-10 of the DEIR, the following is stated:

"...The accident rates are shown in Table 4.11-6 below, and are compared with state averages for ramps with similar characteristics. This comparison indicates that the recent accident rate at this interchange is generally lower than statewide averages..."

That statement contradicts the information reported in Table 4.11-6 as the actual accident rate at the SR 58 southbound on-ramp to US 101 (0.99) is almost three times higher than the state average (0.35). With addition of project traffic, the accident rate would likely increase. Because the DEIR failed to acknowledge the higher accident rate, no impact and mitigation measure was provided to address the probability of more accidents that would occur on the SR 58 southbound on-ramp to US 101.

Therefore, we recommend that the Project Applicant revise the DEIR correctly analyze the higher actual accident rate for the SR 58 southbound on-ramp to US 101. This analysis should describe the existing conditions that lead to the 0.99 accident rate, and what improvements or mitigation measures are required to minimize the accident potential on this facility. Furthermore, no new project, that would contribute a significant amount of traffic to the substandard and hazardous facilities along SR 58, should be granted a Certificate of Occupancy without physically improving the substandard and hazardous facilities.

This concludes our comments on the *Draft Environmental Impact Report (DEIR)* for the *Las Pilitas Quarry Conditional Use Permit and Reclamation Plan*; and, the *Las Pilitas Rock Quarry Traffic Impact Study (TIS)*. If you have any questions regarding this comment letter, please contact me at (858) 925-6190.

Sincerely,

Arch Beach Consulting, Inc.

A handwritten signature in black ink, appearing to read "Dennis M. Pascua", with a stylized flourish at the end.

Dennis M. Pascua
Principal Transportation Planner

cc: Roy Reeves, Margarita Proud
Tamara Kleeman, Margarita Proud
Babak Naficy, Law Offices of Babak Naficy











Attachments: *Synchro* Queuing Analysis Worksheets

HCM Unsignalized Intersection Capacity Analysis

3: El Camino Real & Estrada Ave

Existing AM Peak Hour

6/4/2013










						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	168	143	118	134	195	111
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	183	155	128	146	212	121
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			338		662	260
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			338		662	260
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			89		44	84
cM capacity (veh/h)			1221		382	778
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	338	274	333			
Volume Left	0	128	212			
Volume Right	155	0	121			
cSH	1700	1221	468			
Volume to Capacity	0.20	0.11	0.71			
Queue Length 95th (ft)	0	9	139			
Control Delay (s)	0.0	4.4	29.4			
Lane LOS		A	D			
Approach Delay (s)	0.0	4.4	29.4			
Approach LOS			D			
Intersection Summary						
Average Delay		11.6				
Intersection Capacity Utilization		58.8%		ICU Level of Service		B
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: El Camino Real & Estrada Ave

Existing PM Peak Hour

6/4/2013










						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	68	78	70	95	56	89
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	74	85	76	103	61	97
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			159		372	116
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			159		372	116
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		90	90
cM capacity (veh/h)			1421		595	936
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	159	179	158			
Volume Left	0	76	61			
Volume Right	85	0	97			
cSH	1700	1421	766			
Volume to Capacity	0.09	0.05	0.21			
Queue Length 95th (ft)	0	4	19			
Control Delay (s)	0.0	3.5	10.9			
Lane LOS		A	B			
Approach Delay (s)	0.0	3.5	10.9			
Approach LOS			B			
Intersection Summary						
Average Delay			4.7			
Intersection Capacity Utilization			35.8%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: El Camino Real & Estrada Ave

Existing + Project AM Peak Hour

6/4/2013










						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	168	151	120	134	205	112
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	183	164	130	146	223	122
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			347		671	265
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			347		671	265
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			89		41	84
cM capacity (veh/h)			1212		376	774
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	347	276	345			
Volume Left	0	130	223			
Volume Right	164	0	122			
cSH	1700	1212	460			
Volume to Capacity	0.20	0.11	0.75			
Queue Length 95th (ft)	0	9	156			
Control Delay (s)	0.0	4.5	32.8			
Lane LOS		A	D			
Approach Delay (s)	0.0	4.5	32.8			
Approach LOS			D			
Intersection Summary						
Average Delay		12.9				
Intersection Capacity Utilization		60.0%	ICU Level of Service	B		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: El Camino Real & Estrada Ave

Existing + Project PM Peak Hour

6/4/2013










						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	68	86	71	95	69	90
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	74	93	77	103	75	98
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			167		378	121
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			167		378	121
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		87	89
cM capacity (veh/h)			1410		589	931
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	167	180	173			
Volume Left	0	77	75			
Volume Right	93	0	98			
cSH	1700	1410	744			
Volume to Capacity	0.10	0.05	0.23			
Queue Length 95th (ft)	0	4	22			
Control Delay (s)	0.0	3.6	11.3			
Lane LOS		A	B			
Approach Delay (s)	0.0	3.6	11.3			
Approach LOS			B			
Intersection Summary						
Average Delay			5.0			
Intersection Capacity Utilization			37.1%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: El Camino Real & Estrada Ave

Existing + Proj w/ PCE AM Peak Hour

6/4/2013










						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	168	188	124	134	225	114
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	183	204	135	146	245	124
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			387		700	285
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			387		700	285
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			88		32	84
cM capacity (veh/h)			1172		359	754
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	387	280	368			
Volume Left	0	135	245			
Volume Right	204	0	124			
cSH	1700	1172	436			
Volume to Capacity	0.23	0.12	0.85			
Queue Length 95th (ft)	0	10	207			
Control Delay (s)	0.0	4.6	44.5			
Lane LOS		A	E			
Approach Delay (s)	0.0	4.6	44.5			
Approach LOS			E			
Intersection Summary						
Average Delay		17.1				
Intersection Capacity Utilization		63.7%	ICU Level of Service	B		
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: El Camino Real & Estrada Ave

Existing + Proj w/ PCE PM Peak Hour

6/4/2013

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	68	102	73	95	95	92
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	74	111	79	103	103	100
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			185		391	129
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			185		391	129
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		82	89
cM capacity (veh/h)			1390		578	920
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	185	183	203			
Volume Left	0	79	103			
Volume Right	111	0	100			
cSH	1700	1390	707			
Volume to Capacity	0.11	0.06	0.29			
Queue Length 95th (ft)	0	5	30			
Control Delay (s)	0.0	3.6	12.1			
Lane LOS		A	B			
Approach Delay (s)	0.0	3.6	12.1			
Approach LOS			B			
Intersection Summary						
Average Delay			5.5			
Intersection Capacity Utilization			39.8%	ICU Level of Service		A
Analysis Period (min)			15			